

## REMARKS/ARGUMENTS

### **Claim Amendments**

The Applicant has amended claims 1-5, 15, 22 and 23. Applicant respectfully submits no new matter has been added. Accordingly, claims 1-6 and 8-23 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

### **Examiner Objections – Specification**

The specification was objected to because the Abstract of the Disclosure does not commence on a separate sheet. The Applicant thanks the Examiner for his careful review of the specification. In response, the Applicant has modified the specification as suggested by the Examiner. The Examiner's consideration of the amendments to the specification is respectfully requested.

### **Claim Rejections – 35 U.S.C. § 101**

The invention as disclosed in claims 1-5, 15, 22 and 23 are rejected under 35 U.S.C. 101 as being non-statutory subject matter. The Applicant respectfully submits that the amendments are supported by the specification on page 1, lines 8-11.

### **Claim Rejections – 35 U.S.C. § 103 (a)**

Claims 1-6 and 8-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki et al (US 6,757,255) (Aoki hereafter) and Kadyk, et al. (US 2002/0157019) (Kadyk hereafter). The Applicant respectfully traverses the rejection of these claims.

First, the Applicant respectfully submits that the present invention is classified by the Examiner as US class 709/232. This class is directed to Computer to Computer data transfer, which is not in the same class as either the Aoki or Kadyk a reference. Aoki, US class 370/252, is directed to Multiplexing Communications and determining Communication parameters. On the other hand, Kadyk, US class 726/12 is directed to Information Security; "...prevention of unauthorized access to resources of a system or

information system, including the manner of identifying and verifying the entity, process, or mechanism requesting access to the resource." Kadyk's sub class of 12 describes "...an intermediate internetworking device that connects one or more networks to another for a specific application. The Applicant respectfully submits that a person skilled in the art, when trying to improve bandwidth in a communications multiplexing application is not likely to search in a security class to improve bandwidth.

The Applicant's present invention discloses an improvement for reducing the processing load of a host running a proxy for data flow in a network. A data flow is defined on page 1, line 20 of the application as an "...end to end stream of packets...". "Proxying" (implementing a proxy) data flows is a work-intensive task. The present invention checks a data flow's pipe capacity and "proxy's" on the flows where the proxy process increases the performance (see p. 5, II. 3 - 30 and p. 6, II. 12 - 20), whereas the other flows that do not add to an increase in performance are forwarded without proxying.

The Applicant notes that neither the Aoki nor Kadyk references address pipe capacity. Pipe capacity is defined on page 4, lines 13-17 of the Applicant's specification: "...[T]he minimum number of packets... that a flow has to have in flight to fully utilize the available bandwidth,... and above which packets are queued in the network." Neither does the Aoki reference disclose estimating a minimum load necessary to occupy a bandwidth, or an estimation unit that outputs flow capacity estimation.

The Applicant's "decision unit" decides to proxy the data flow if the estimated pipe capacity, received from the estimation unit, is higher than the estimated pipe capacity. The cited portion of Aoki regarding the Applicant's decision unit does not compare pipe capacity with a threshold. The performance judging unit to which the Applicant's decision is compared in column 16 of the Aoki reference, measures the transfer speed of measurement-oriented packets in round trip times to estimate available bandwidth – not pipe capacity as recited in Applicant's claim 1. The Applicant's decision unit decides whether to proxy a flow or not.

Further, the Applicant respectfully disagrees with the Examiner's interpretation of the cited portion of Aoki for rejecting the routing unit limitation (Col. 16, lines 38-43 and

60-67). The cited portion of Aoki does not route packets according to a determination of pipe capacity provided by an estimation unit. The Applicant respectfully submits that this portion Aoki describes how measurements are performed and not whether a flow is routed in response to the decision regarding pipe capacity.

As noted earlier Kadyk discloses a proxy. The proxy in Kadyk is a typical proxy that provides a secure end-to-end connection between a client and a server. However, the Applicant's proxy provides end-to-end data flow utilizing the units recited in claim 1. Kadyk fails to include any of the above limitations/units that are also missing from the Aoki reference. Individually or in combination, the Aoki and Kadyk references do not show a differentiated handling of flows at a proxy based upon the pipe capacity estimation. This being the case, the Applicant respectfully requests the allowance of independent claim 1, 6 and 8.

Claims 2-3, 9-10, 12 -17, 19-21 and 23-26 depend from independent claims 1, 6 and 8 and recite further limitations in combination with the novel elements of claim 1, 6 and 8. Therefore, the allowance of claims 1-3, 5-10, 12-17, 19-21 and 23-26 is respectfully requested.

Claims 4, 11, 18 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki et al (US 6,757,255) (Aoki hereafter) and Kadyk, et al. (US 2002/0157019) (Kadyk hereafter), in view of Ludwig et al (EP 0948168 A1). The Applicant respectfully traverses the rejection of these claims.

The Ludwig reference is cited for teaching a bottleneck window that takes into account local information on the bandwidth of individual links. The Applicant respectfully submits that the local information element in the dependent claims is recited in the the Ludwig reference, Ludwig fails to provide the limitations not found in the Aoki and Kadyk references.

Claims 4, 11, 18 and 22 depend from claims 1, 6 and 8 respectively and recite further limitations in combination with the novel elements of claims 1, 6 and 8. Therefore, the allowance of claims 4, 11, 18 and 22 is respectfully requested.

**Prior Art Not Relied Upon**

In paragraph 5 on page 11 of the Office Action, the Examiner stated that the prior art made of record and not relied upon is considered pertinent to the Applicant's disclosure.

### CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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